

REMARKS

Reconsideration of the present application is respectfully requested.

Summary of Amendments

Claims 1, 7 and 13 have been amended. Claims 17 and 18 are new. No claims have been canceled in this amendment. No new matter has been added.

Summary of Office Action

Claims 14-16 stand allowed, for which Applicants express their appreciation. Claims 1, 2, 5, 7-9, 12 and 13 stand rejected under 35 U.S.C. § 103(a) based on U.S. Patent no. 5,975,738 of DeKoning et al. ("DeKoning") in view of U.S. Patent no. 5,193,050 of Dimmick ("Dimmick"). Claims 2-4 and 6-13 stand rejected under 35 U.S.C. § 103(a) based on a combination of DeKoning and Dimmick and one or more other references.

Interview Summary

A telephonic interview was conducted between the Examiner and Applicants' representative (the undersigned) on December 20, 2007. A proposed amendment to the claims was discussed, which is embodied in the above amendments. Claims and 7 were discussed relative to DeKoning and Dimmick. Applicant presented arguments which are substantially repeated below. While no particular agreement was reached, the Examiner indicated he would take Applicants' arguments into consideration when reviewing Applicants' next formal response (this response).

Discussion of Rejections

Claim 1

While Applicants continue to respectfully disagree with the Office's interpretation of DeKoning (particularly regarding the limitation, "reassigning ownership of at least one of the mass storage devices . . ."), this issue is believed to be moot in view of the previous amendment and above amendments to the claims.

Applicants respectfully submit that the rejection is improper and unsustainable in several respects.

Claim 1

I. Not all of the claim limitations are shown in the cited combination of references

First, DeKoning does not teach or suggest a method of reconfiguring a storage system as recited in claim 1, where such method includes converting a standalone storage server into an operational JBOD set (per amended claims 1 and 7), and then integrating the JBOD set into a modular storage server system to enable the plurality of mass storage devices to be controlled by a second storage server head that is external to the chassis. The Office contends:

Once a failure occurs in the DeKoning system, the storage system will in fact be "reconfigured" after the second controller takes control of the array. Additionally note, once the server head is disconnected from the array of disks, the array can no longer function as a RAID array (i.e. absent any intelligent logic controlling how the data is written to disk), hence they remain a JBOD set. (Office Action, pages 12-13).

Applicants respectfully disagree. First, if only one RAID controller 118 was removed from the system 100 in DeKoning, that would not result in a JBOD set, because the remaining (functional) RAID controller would take over ownership of the affected disks. So to the extent the Office interprets the combination of a RAID controller 118 and a set of disks 110 in DeKoning as a “standalone storage server” per claim 1, the result of removing only one RAID controller from the system 100 would still be a “standalone storage server”, not a JBOD set.

Further, removing both of the RAID controllers 118 from the system 100 in DeKoning would not produce an operational JBOD set (per claims 1 and 7), because there would be no communication interface between the disks and any controller or server head, and therefore, no way the JBOD set could operate. (In certain embodiments of the present invention, the internal storage server head is replaced with an input/output (I/O) module that acts as a communication interface between the internal disks and an external head, thus producing an operational JBOD set; see claims 7, 17 and 18. However, this detail of how the operational JBOD set is produced is not necessary or relied upon here to distinguish over the cited art.)

Therefore, claim 1 and all claims which depend on it are thought to be patentable over the cited art for at least this reason.

II. The rejection is procedurally inadequate.

The rejection of claims 1 and 7 is improper for additional reasons as well. For example, the Office acknowledges that DeKoning fails to teach that the second storage server head is external to the chassis as recited in claim 1. However, the Office seems to imply (though does not clearly allege) that Dimmick discloses such a feature. Yet

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nowhere in the Office Action do Applicants find any assertion that Dimmick teaches the above-noted limitation that is acknowledged to be missing from DeKoning. The Office merely asserts that Dimmick “teaches the use of a single enclosure (i.e. chassis) incorporating several additional modules to form an integrated subsystems for data processing systems” (Office Action, page 5). Even if one accepts (*arguendo*) that characterization of Dimmick, the Office has not indicated where the above-noted missing limitation is supposedly disclosed in Dimmick (or anywhere else in the cited art). As such, the rejection is procedurally inadequate and should be withdrawn.

Further, nowhere in the Office Action does the Office even contend that it would be obvious to combine the teachings of DeKoning and Dimmick, nor does the Office provide any reason why a person of ordinary skill in the art would attempt to do so. See *KSR Int'l. Co. v. Teleflex Inc.*, No. 04-1350, slip op. at 15 (U.S. April 30, 2007). For these additional reasons, the rejection is procedurally inadequate and should be withdrawn.

III. Dimmick teaches away.

Dimmick teaches away from the use of a separate external storage server head, by specifically teaching that numerous components are integrated within a single enclosure (col. 2, lines 8-25).

IV. Invention as a whole is not obvious.

The question under 35 U.S.C. § 103 is not whether the *differences* themselves would have been obvious; rather, the claimed subject matter *as a whole* must be

obvious in view of the cited art to find a claim unpatentable for obviousness. 35 U.S.C. § 103(a); *Stratoflex, Inc. v. Aeroquip Corp.*, 713 F.2d 1530, 1537 (Fed. Cir. 1983).

Note that Applicants' claims do not merely recite coupling a JBOD set to an external storage server head; rather, the invention is directed to (*inter alia*) converting a standalone storage server into a JBOD set, which is then controllable by a separate, external storage server head. None of the cited references provides any indication or reason as to why it would be desirable to convert a standalone storage server (i.e., whose elements are contained within in a single chassis) into a JBOD set that is controlled by a separate, external storage server, per the present invention. As previously noted, DeKoning is merely directed towards improved ways of detecting and diagnosing failures. Dimmick teaches integration of components within a single, self-contained processing system, as noted above. Neither of these references provides any reason or motivation for someone to attempt to achieve the present invention, as claimed. Therefore, the present invention could not be obvious from any combination of DeKoning and/or Dimmick.

For the above reasons, therefore, claim 1 and all claims which depend on it are thought to be patentable over the cited art.

Claim 7

The remarks above regarding claim 1 also apply to claim 7.

In addition, claim 7 recites the limitation, "installing an input/output (I/O) module within the chassis to act as an interface between the mass storage devices installed in the chassis and an external storage server head unit." The cited references are not

seen to disclose or suggest such limitation, particularly in combination with the other recited operations. Therefore, claim 7 and all claims which depend on it are thought to be patentable over the cited art for this additional reason.

Applicants have not necessarily discussed here every reason why every pending independent claim is patentable over the cited art; nonetheless, Applicants are not waiving any argument regarding any such reason or reasons. Applicants reserve the right to raise any such additional argument(s) during the future prosecution of this application, if Applicants deem it necessary or appropriate to do so.

Dependent Claims

In view of the above remarks, a specific discussion of the dependent claims is considered to be unnecessary. Therefore, Applicants' silence regarding any dependent claim is not to be interpreted as agreement with, or acquiescence to, the rejection of such claim or as waiving any argument regarding that claim.

Conclusion

For the foregoing reasons, the present application is believed to be in condition for allowance, and such action is earnestly requested.

Request for Telephone Interview

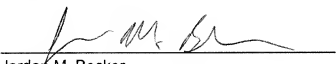
Applicants respectfully request that the Examiner contact the undersigned at (408) 720-8300 to schedule a telephone interview, in the event the Examiner does not find the present application to be allowable after considering this response.

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If there are any additional charges/credits, please charge/credit our deposit
account no. 02-2666.

Respectfully submitted,
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Dated: December 21, 2007



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